

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2002-178459

(43)Date of publication of application : 26.06.2002

51)Int.Cl.

B32B 27/18
A61L 9/00
B01J 33/00
B01J 35/02
B32B 33/00
B42D 5/04
D06N 7/04
D21H 19/38
D21H 21/14
// C09D 11/00

(21)Application number : 2000-383608

(71)Applicant : NATIONAL INSTITUTE OF ADVANCED
INDUSTRIAL & TECHNOLOGY
TOUGEDA HIROSHI
MORI SEITAKK

(22)Date of filing : 18.12.2000

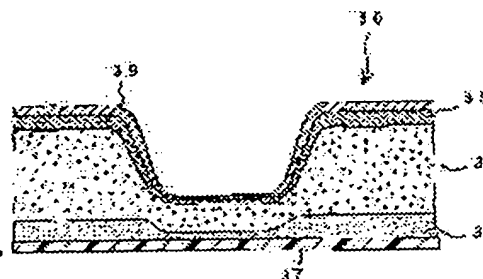
(72)Inventor : TOUGETA HIROSHI
MORI HISAYOSHI
MORI TAKASHI

(54) PHOTOCATALYST BEARING PRINTED MATTER

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a photocatalyst bearing printed matter whereon a photocatalyst is borne firmly, of which a design printed part hardly discolors and can be maintained clearly and which decomposes harmful substances such as an offensive smell constituent and can keep a comfortable indoor environment, and a manufacturing method thereof.

SOLUTION: The design printed part 35 is formed on the upper side of a base material 31 selected from wood pulp paper or Japanese paper, woven or nonwoven fabric of chemical or vegetable fibers, knit or warp yarns. The photocatalyst bearing layer 39 is formed of transparent ink for printing containing photocatalyst particles prepared by covering partially the surface of a photocatalyst with ceramic inactive as the photocatalyst, so that it covers the whole surface of the design printed part 35. A thermally foamed embossed indentation is formed on the surface side having the design printer part 35 as occasion demands.



BEST AVAILABLE COPY

XP-002283098

AN - 2002-700542 [76]

AP - JP20000383608 20001218

CPY - DOKU-N

- MORI-N

- TAOD-I

DC - D22 F06 F09 G02 J04 P34 P73 P76

FS - CPI;GMPI

IC - A61L9/00 ; B01J33/00 ; B01J35/02 ; B32B27/18 ; B32B33/00 ; B42D5/04 ;
C09D11/00 ; D06N7/04 ; D21H19/38 ; D21H21/14

MC - D09-B F03-E01 F05-A06B G02-A04A J04-E04

PA - (DOKU-N) DOKURITSU GYOSEI HOJIN SANGYO GIJUTSU SO

- (MORI-N) MORI SEITAI YG

- (TAOD-I) TAODA H

PN - JP2002178459 A 20020626 DW200276 B32B27/18 011pp

PR - JP20000383608 20001218

XA - C2002-198893

XIC - A61L-009/00 ; B01J-033/00 ; B01J-035/02 ; B32B-027/18 ; B32B-033/00 ;
B42D-005/04 ; C09D-011/00 ; D06N-007/04 ; D21H-019/38 ; D21H-021/14

XP - N2002-552249

AB - JP2002178459 NOVELTY - A photocatalyst supporting print, has a transparent photocatalyst layer (39) on a base material. The photocatalyst layer is obtained by printing ink containing photocatalyst grain whose surface is partially covered with inactive ceramic.

- USE - In wallpaper, calender, cloth, sash paper, paper of sliding door, indoor poster for decomposing toxic substances and offensive compounds such as formaldehyde in environment.

- ADVANTAGE - The photocatalyst supporting print has excellent preservability, deodorizing capability and weather resistance. The disassociation of transparent ink is prevented. Since the photocatalyst grain has inactive ceramic on its surface, the affinity of microbe, fungi is improved. The release of offensive odor component from microbial cells is prevented.

- DESCRIPTION OF DRAWING(S) - The figure shows fragmentary sectional view of photocatalyst supporting print.

- Plastic wallpaper 30

- Converting paper 31

- Base paper layer 33

- Pattern 35

- Transparent photocatalyst layer 39

- (Dwg.5/7)

IW - PHOTOCATALYST SUPPORT PRINT WALLPAPER DECOMPOSE TOXIC SUBSTANCE
PHOTOCATALYST LAYER OBTAIN PRINT TRANSPARENT INK CONTAIN PHOTOCATALYST
GRAIN COVER INACTIVE CERAMIC

IKW - PHOTOCATALYST SUPPORT PRINT WALLPAPER DECOMPOSE TOXIC SUBSTANCE
PHOTOCATALYST LAYER OBTAIN PRINT TRANSPARENT INK CONTAIN PHOTOCATALYST
GRAIN COVER INACTIVE CERAMIC

NC - 001

OPD - 2000-12-18

ORD - 2002-06-26

PAW - (DOKU-N) DOKURITSU GYOSEI HOJIN SANGYO GIJUTSU SO